



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,883	04/10/2001	Scott A. Rawson	IR-2819(MF)	8545

7590 04/03/2003  
Edward F Murphy III  
Lord Corporation  
Post Office Box 8012  
Cary, NC 27512-8012

EXAMINER

KING, BRADLEY T

ART UNIT	PAPER NUMBER
----------	--------------

3683

DATE MAILED: 04/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/829,883

Applicant(s)

RAWSON, SCOTT A.

Examiner

Bradley T King

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 January 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,10-13,17,18,20 and 21 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

- 6) ☒ Claim(s) 1-2, 10-13, 17-18, 20-21 is/are rejected.

- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \*   c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 10, 12-13, 17-18, and 20-21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Workman et al (US 2132840).

Workman et al discloses a vibration isolation member including: an inner member 17 having a frustoconical seat having an angled surface and an outer periphery diameter D', an outer member 16 having a base and a shroud that extends away from the base, the shroud adapted to overlay the inner member, the shroud having an angled segment with an inner surface, the angled segment inner surface oriented substantially parallel to the angled surface of the frustoconical seat, the shroud defining an inner periphery diameter D'', the inner periphery diameter D'' less

than the outer periphery diameter  $D'$ , a single resilient member 18 constrained between the shroud angled segment inner surface and the inner member frustoconical seat angled surface, the single resilient member having a substantially trapezoidal cross section, the single resilient member bonded to the shroud angled segment inner surface and the inner member frustoconical seat angled surface provides for displacement of the inner member in a radial direction and in an axial direction from the outer member with the frustoconical seat outer periphery diameter  $D'$  providing an interference with the shroud inner peripheral diameter  $D''$  to prevent separation of the vibration isolation member in the event of failure of the single resilient member. Workman et al remain silent with regards to the stiffness of the mount in different directions; however, the structure is similar to that of the applicant's. Therefore, the mount will inherently exhibit some degree of iso-elasticity. Further, modifying shapes and orientation of elastomers to vary stiffness in different directions is well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shape and orientation of the elastomer of Workman et al to achieve the desired elastic stiffness characteristic for a given application.

Claims 1-2, 10-13, 17-18, and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nowak et al (US 5116030) in view of Kubaugh (US 2367830).

Nowak et al discloses a vibration isolation member including: an inner member 34 having a frustoconical seat having an angled surface and an outer periphery diameter  $D'$ , an outer member 55 having a base and a shroud that extends away from the base, the shroud adapted to overlay the inner member, the shroud having an angled segment with an inner surface, the angled

Art Unit: 3683

segment inner surface oriented substantially parallel to the angled surface of the frustoconical seat, the shroud defining an inner periphery diameter  $D''$ , a single resilient member 20 constrained between the shroud angled segment inner surface and the inner member frustoconical seat angled surface, the single resilient member having a substantially trapezoidal cross section, the single resilient member bonded to the shroud angled segment inner surface and the inner member frustoconical seat angled surface provides for displacement of the inner member in a radial direction and in an axial direction from the outer member. Nowak et al lack the frustoconical seat outer periphery diameter  $D'$  being larger than the inner periphery diameter  $D''$  of the shroud member, thereby providing an interference with the shroud inner peripheral diameter  $D''$  to prevent separation of the vibration isolation member in the event of failure of the single resilient member. Kubaugh teaches the extension of a shroud member such that an inner periphery of the shroud is smaller than the outer periphery of an inner member so that the two parts will not completely separate if the resilient member fails (column 1, lines 18-21). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the mount of Nowak to provide an interference as taught by Kubaugh to prevent full separation of the two members, thereby increasing the safety of the device.

Regarding claim 11, Nowak disclose silicone (column 5, lines 19-20).

*Response to Arguments*

Applicant's arguments filed 1/22/03 have been fully considered but they are not persuasive.

Regarding Workman, applicant's arguments are noted. While a portion of the resilient member of Workman is unconstrained, the majority of the member is constrained between inner and outer members and therefore the device has a constrained single resilient member as required by the claims. Regarding the iso-elasticity of the device, it is noted that the isolation member of the instant invention is also biased to a degree towards one direction (the preferred angle is disclosed as 55 degrees). It is maintained that the device of Workman exhibits at least some degree of iso-elasticity as broadly recited by the claims.

Regarding Nowak, it is maintained that Nowak discloses a single resilient member iso-elastic vibration isolation member (55, 38, 20) as required by the claims. The claim language does not preclude additional vibration isolation members. Regarding the combination of Nowak and Kubaugh, it is maintained that the rejection is proper. Nowak discloses an isolator with similar structure as that of Kubaugh. Kubaugh teaches a safety mechanism to prevent separation of two halves of an isolator in the event of a failure. Nowak can clearly benefit from this safety structure as separation of the resilient members would allow the entire device to separate. While the applicant contends that a failure of the second resilient member of Nowak would still be possible, such a failure would not result in the complete separation of the device. It is maintained that the teachings of Kubaugh are fully applicable to the device of Nowak and the rejection is proper.

*Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley T King whose telephone number is (703) 308-8346. The examiner can normally be reached on 11:00-7:30 M-F.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

BTK  
April 1, 2003

  
JACK LAVINDER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600  
